REMARKS

Claims 1-21 were examined in the outstanding office action mailed on 08/02/2006 (hereafter "Outstanding Office Action"). All claims were rejected. By virtue of this response, the specification and claims 1, 3, 7, 10-13, 16, 18 and 21 are sought to be amended. The amendments are believed not to introduce new subject matter, and their entry is respectfully requested. The amendments are made without prejudice or disclaimer. Claims 1-21 are thus respectfully presented for reconsideration.

Specification

In page 2 lines 1-2 of the Outstanding Office Action, the title has been objected to for not being descriptive. The title is accordingly sought to be modified by the foregoing amendment, and withdrawal of the objection is respectfully requested. The Examiner is respectfully invited to change the title by Examiner's amendment, to the extent the amended title is felt not to satisfy the applicable requirements. See MPEP 606.01.

In page 2, paragraph number 2, the disclosure has been objected to on account of the font size used. It has been suggested that non-script type fonts with a font size of 12 be used. In response, Applicant submits a substitute specification in PDF form using the suggested font and size. Withdrawal of the objection is respectfully requested.

In page 2, paragraph 3, the disclosure has been objected to for consistent misspelling of "roll-back". Occurrences of "roll-back" are accordingly sought to be replaced by "rollback" by the foregoing amendments, and withdrawal of the objection is respectfully requested. Applicants and the undersigned representative thank the Examiner for noting the error and the correction.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-21 were rejected under 35 U.S.C. § 102 (b) as being anticipated by United States Patent Application 5,701,480 naming as inventor Raz (hereafter "Raz"). Applicant respectfully traverses for reasons explained below.

For example, independent claim 1 recites:

> A method of implementing an atomic transaction using a program logic, said method comprising:
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> requesting in said program logic a transaction identifier for said atomic transaction;
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> generating said transaction identifier in a transaction manager in response to said requesting;
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> specifying *in said program logic* a plurality of combinations for execution in a sequential order, *wherein each of said plurality of combinations contains said transaction identifier, a task procedure, and a rollback procedure*, *wherein said task procedure implements a part of said atomic transaction* and said rollback procedure is designed to rollback said task procedure;
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> executing said task procedures in said sequential order;
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> *keeping track of said rollback procedures in said transaction manager*; and
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> executing said rollback procedures in a reverse order of said sequential order if said atomic transaction is to be aborted, wherein said rollback procedures are identified according to said keeping.

(*Emphasis Added*)

Thus a program logic according to claim 1 includes a corresponding rollback procedure along with the transaction identifier (requested earlier in the program logic) and the task procedure (which is part of the atomic transaction sought to be implemented) in each combination. The transaction manager keeps track of the rollback procedures thus specified while executing the corresponding task procedures in a sequential order, and executes the rollback procedures in a reverse order if the atomic transaction is to be aborted.

Due to such a facility of specifying the corresponding rollback procedure when specifying the various task procedures as being part of an atomic transaction, the overall complexity of developing program logic may be simplified.

Raz does not disclose or reasonably suggest a feature by which rollback procedures are specified in the program logic while defining task procedures as a part of a transaction sought to be implemented.

In rejecting claim 1, the examiner appears to equate the post-processing (processing after a failure of a transaction) of Raz to the rollback procedures of claim 1. While Raz

contemplates failure of transactions and the post-processing thereafter, the approach of post-processing suggests a markedly different teaching compared to claim 1 explained above. In support of such an assertion, Applicants now point to relevant portions of Raz:

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To deal with the problem of ***possible failure*** when writing to non-volatile memory, there has been established a method of programming called "transaction processing" which guarantees that a portion of the non-volatile memory (referred to hereinafter as "state memory") will either be unaffected by a transaction or will be properly updated by results of a transaction, in the presence of the failures. ***Transaction processing is based upon the technique of making a back-up copy of state memory before the results of a transaction are written to state memory, and also writing in non-volatile memory an indication of either a first processing phase in which the back-up copy is being made, or a second processing phase in which the results of a transaction are being written to state memory, in order to indicate which copy might have been corrupted during a failure.*** For making a back-up copy of state memory, for example, the non-volatile memory 23 includes two banks of state memory 28 and 29. To provide an indication of which bank of stat memory might have been corrupted by a failure, the non-volatile memory 23 includes a memory location 30 for storing a switch or flag. (Column 12, Lines 14-34 of Raz, ***Emphasis Added***)

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Turning now to FIG. 2A, there is shown a flow chart of a procedure for guaranteeing that when recovering from a failure, the state memory of the computer 20 shown in FIG. 1 is either unaffected by a transaction or is properly updated by the result of a transaction. Assume, for example, that the computer system is turned on after a power failure. In a first step 51, the central processing unit 21 reads the value of the switch 30 stored in the non-volatile memory 23. This switch indicates ***which of the two banks of state memory 28, 29 might possibly have been corrupted by the power failure. In step 52, the central processing unit 21 references the value of the switch to read the bank of state memory known not to have been corrupted, and to make a "working copy" of the data in the other bank of state memory.*** Therefore, after step 52, both bank 28 and bank 29 of state memory have the same contents.(Column, 12, Lines 45-60 of Raz, ***Emphasis Added***)

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To enable the recovery of memory records after a partial system failure, it is necessary for the application program to keep backup copies of the records in nonvolatile memory. When the computing system is restarted, ***the memory records to be recovered are replaced with the backup copies***. (Column 2, Lines 1-6, ***Emphasis Added***)

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Since Raz relies on a technique in which backup copies of state memory are made for any necessary later recovery, it is concluded that the program logic of Raz would not have the motivation to specify rollback procedures while defining task procedures as a part of a transaction sought to be implemented.

Thus, it is Applicant's position that Raz does not teach or suggest several features of independent claim 1 noted above. Accordingly claim 1 is believed to be allowable over Raz. Dependent claims 2-6 are also believed to be allowable at least as depending from an allowable base claim 1.

5   Independent claim 7 is also allowable over Raz at least in reciting in relevant portions:

.....*specifying* a plurality of combinations for execution, wherein each of said plurality of *combinations contains* said transaction identifier, *a task procedure, and a rollback procedure*, wherein said task procedure implements a part of said atomic transaction and said rollback procedure is designed to rollback said task procedure; and ...
10   (*Emphasis Added*)

Raz does not appear to teach at least such a feature of independent claim 7 for reasons similar to those given above. Thus, independent claim 7 is believed to be allowable. Dependent claims 8-9 are also believed to be allowable at least as depending from an allowable base claim.

15   Similarly, independent claim 10 recites in relevant portions:

.....receiving a plurality of combinations for execution, wherein each of said plurality of combinations contains *said transaction identifier, a task procedure, and a rollback procedure*, wherein said task procedure implements a part of said atomic transaction and said rollback procedure is designed to rollback said task procedure;

20   Raz does not appear to teach at least such a feature of independent claim 10 for reasons similar to those given above. Thus, independent claim 10 is believed to be allowable. Dependent claims 11-15 are also believed to be allowable at least as depending from an allowable base claim.

Similarly, independent claim 16 recites in relevant portions:

25   ....specify in said program logic a plurality of combinations for execution in a sequential order, wherein each of said plurality of *combinations contains* said *transaction identifier, a task procedure, and a rollback procedure*, wherein said task procedure implements a part of said atomic transaction and said rollback procedure is designed to rollback said task procedure; ... (*Emphasis Added*)

30   Raz does not appear to teach at least such a feature of independent claim 16 for

reasons similar to those given above. Thus, independent claim 16 is believed to be allowable. Dependent claims 17-21 are also believed to be allowable at least as depending from an allowable base claim.

5   Thus, it is believed that all objections and rejections have been overcome, and applicant respectfully requests their withdrawal. The Examiner is invited to telephone the undersigned representative at 707.356.4172 if it is believed that an interview might be useful for any reason.

                                        Respectfully submitted,

                                        /Narendra Reddy Thappeta/
                                        Signature
Date: October 11, 2006   Printed Name: Narendra Reddy Thappeta
                                        Attorney for Applicant
                                        Registration Number: 41,416